

1931-39, 74 boys and 56 girls under 15 years of age died as a result of accidental poisoning. In the following decade, 1940-49, these figures had risen to 161 boys and 116 girls.

INDUSTRIAL HEALTH AND SAFETY CENTRE

To keep pace with changing concepts, the Industrial Museum of the Ministry of Labour has now been re-named the Industrial Health and Safety Centre. This Centre was built as an industrial museum in 1914, but the advent of World War I prevented its use for this purpose, and it was not until 1925 that it was restored to the Factory Department of the Home Office and developed as originally intended. During World War II the Factory Department, and along with it the Museum, were transferred to the Ministry of Labour and National Service. The increasing emphasis on industrial health has rendered the original concept of the museum rather outmoded, and a complete reorganization has taken place, hence the change of name. The Centre, the only one of its kind in this country, is a permanent exhibition of methods, arrangements and appliances for promoting safety, health and welfare in industry. All aspects of the subject are covered, including industrial diseases, first aid, lighting, ventilation, colouring, and safety devices. The Centre is open daily, free of charge, and an H.M. Inspector of Factories is always on duty to conduct parties of visitors. In 1953, there were more than 12,000 visitors to the Centre. It is well worth inclusion in the itinerary of any industrial medical officer visiting this country. The address is 97 Horseferry Road, Westminster, London, S.W.1.

VENEREAL DISEASE IN THE ARMY

Somewhat belatedly, but accompanied by promises of more prompt publication in the future, the Report on the Health of the Army for 1951 and 1952 has just been published. One of the more interesting sections is that dealing with the incidence of venereal disease—that one-time scourge of army life. There was a decreased incidence in all Commands, although the incidence in the Far East continued to be high. The figures for 1952 show the incidence per thousand to have been 5.5 in the United Kingdom, 15.3 in B.A.O.R., 13.4 in the Middle East, 97.6 in the Far East (152 in Hong Kong, 59 in Singapore) and 262 in Korea. It is reported that late in 1951 penicillin tablets were made available to troops for prophylactic use, but the results obtained did not justify the continuance of this. In Japan, chancroid lymphogranuloma (225.8 per thousand) accounted for a large proportion of the total venereal disease in the area. The incidence of non-specific urethritis continued to increase; in the United Kingdom and Austria the incidence was greater than that of gonorrhoea.

DR. SCHWEITZER, O.M.

Widespread pleasure has been expressed at the news that the Queen has appointed Dr. Albert Schweitzer, the French philosopher, musician and medical missionary, an honorary member of the Order of Merit. The only other living person with honorary membership of the Order is President Eisenhower, who in 1945 became the first American to receive this distinction.

London, April 1955.

WILLIAM A. R. THOMSON

U. OF T. CLASS DINNER—1910

The reunion dinner of Class '10, University of Toronto, will be held on Tuesday, June 21, during the conjoint meeting of the B.M.A.-C.M.A.-O.M.A. Tickets and information will be obtainable at the Registration Desk, Ontario Medical Association, Royal York Hotel, Toronto.

OBITUARIES

DR. W. GRANT BEATON, 66, died on February 27. Born in Clinton, Ont., he went to Manitoba with his family in 1909 and had resided in Winnipeg from 1910. He graduated with honours from the Manitoba Medical College in 1919, and in 1947 was certified as a general surgeon by the Royal College of Physicians and Surgeons of Canada. For several years he was chief of staff at Misericordia Hospital. He was treasurer of the Manitoba Medical Association and chairman of the Board of Trustees. In the Canadian Medical Association he served as chairman of the Membership Committee. Surviving him are his widow, mother and daughter.

DR. PHILIP BURNETT, Montreal-born and one of the pioneer dermatologists in Canada, died in the Royal Victoria Hospital, Montreal, on March 15, at the age of 77. Dr. Burnett was founder of the first dermatological clinic at the Royal Victoria Hospital in 1904. After attending Clifton College, Bristol, he graduated in medicine from McGill University in 1900 and continued postgraduate training in England, France, Germany and Austria before and after World War I. In 1901 he received the diplomas of L.R.C.P. and M.R.C.S. In 1914 he took an active part in the formation of the No. 6 Field Ambulance Corps and in the following year went overseas with the rank of major. While serving in France he was named consultant dermatologist to the Second Canadian Army. He was promoted to the rank of colonel during the war and was awarded the Distinguished Service Order. He was a charter member and the first president of the Montreal Dermatological Society, in 1930-31. In 1942 he retired as dermatologist at the Royal Victoria Hospital and also as professor of clinical dermatology at McGill University, an appointment he had held for many years. He is survived by a brother and a sister.

DR. KENNETH E. COOKE, for 35 years a physician in Hamilton, Ont., died on March 1 after a short illness. He was 68. A graduate in arts and medicine from the University of Toronto, he practised briefly in Brantford, and in World War I served overseas with the rank of captain. He was awarded the Military Cross for outstanding bravery in the Battle of the Somme. In 1920 he established practice in Hamilton, continuing in military service as an officer in the Reserve Army with the 5th Field Ambulance for six years, until 1932, returning to take command from 1940 to 1946, while the active unit was overseas. He was medical superintendent at St. Peter's Infirmary from 1930 until his death, physician to the Hamilton Hydro Electric Commission and the Mercury-Chipman Mills, and also visiting physician for the Department of Veterans' Affairs. Dr. Cooke was actively interested in athletics, and acted as doctor for the Tiger Football Club for many years, and as medical health officer for the Burlington Beach Commission. A son and daughter, and his brother, survive him.

DR. J. DICKSON COURTENAY, M.B., F.A.C.S., F.R.C.S., died in Ottawa on March 20 at the age of 91. He graduated from the University of Toronto and specialised in diseases of the eye, ear, nose and throat in London and Edinburgh. In 1895 he established Ottawa's first practice in this specialty, and in that year was made a Fellow of the Royal Society of Medicine. During World War I he served in England with the rank of major. On his return to Canada he became a member of the Army Hospital Commission, and later took a prominent part in the founding of the Ottawa Civic Hospital. Dr. Courtenay was active in civic affairs and continued in private practice until two years before his death, when an accident forced his retirement. He is survived by two sons and a sister.

DR. ERNEST G. DUMONT died in his sleep at his home in Campbellton, N.B., on March 2, at the age of 46. He was born in Maine and baptized at Rogersville, N.B. After receiving a Bachelor of Arts degree at Sacred Heart University, he studied medicine at the University of Montreal, from which he graduated in 1936. He was certified in surgery by the Royal College of Surgeons. Dr. Dumont was a member of the Dumont Clinic and took much interest in medical and educational affairs. A gifted musician, Dr. Dumont organized and conducted the St. Cecilia Orchestra which provided symphony music of a high order. He was a staff member of the Hôtel-Dieu and Soldiers Memorial hospitals in Campbellton and had served on the executive committee of the New Brunswick Medical Society. Surviving are his widow, two sons, and a daughter.

DR. GEORGE VERMILYEA FAULKNER, a medical practitioner at Belleville, Ont., for the past 10 years and president of the medical staff of Belleville General Hospital, died in Montreal of a heart attack on March 23. Dr. Faulkner was born at Foxboro, Ont., 47 years ago, and graduated in medicine from McGill University. His father, the late Dr. Albert Faulkner, was at one time Minister of Health for the Province of Ontario. At the outbreak of World War II, Dr. Faulkner enlisted in the British Army as a private, subsequently being transferred to the Indian Army Medical Corps as captain. He was awarded the Military Cross and was mentioned in despatches for his part as a member of a 1943 guerrilla force, Wingate's Raiders, which penetrated a thousand miles behind Japanese lines into occupied Burma. After a glider crash, on a flight to reinforce a raiding party, he walked 50 miles to reach Allied lines in India. Dr. Faulkner is survived by his widow, two children, a sister, and a brother.

DR. GEORGE BOOTHE FERGUSON, 69, who had been visiting Hanover, Germany, died there on March 26 as the result of a heart attack. Born in Moorefield, Ont., he graduated in Winnipeg and practised for many years in Saskatchewan. During World War I he saw service at Salonika and was later stationed in the military hospital at Bramshott, England. After the war he underwent advanced surgical training in Manchester and practised in London, England. Before returning to Canada he acted as medical examiner for the Canadian Immigration Department in Holland and in Riga, Latvia. Surviving Dr. Ferguson are his widow, a brother and three sisters.

DR. RICHMOND GOULDEN, who served in both World Wars and survived two ship sinkings in World War II, died on February 17 in Prince Rupert, B.C., at the age of 84. Dr. Goulden was born in Stockport, England, and came to Canada in 1904 to live at Tyndall, Man., where he started a practice. In World War I he joined a combat unit as medical officer and served overseas. On his return to Canada he was appointed as psychiatrist for the Manitoba Mental Hospital at Brandon. During World War II Dr. Goulden served as ship surgeon aboard troopships. Later he joined the staff of Verdun Protestant Hospital in Montreal, as psychiatrist. He went to Prince Rupert in 1953, seven years after his retirement. Dr. Goulden is survived by his widow and two sons.

DR. CHARLES HUNTER, one of the most scholarly of Winnipeg physicians, and Emeritus Professor of Medicine, died on March 18, aged 82. He came to Winnipeg in 1904 with a reputation of learning and diagnostic acumen and went on to win further distinctions. For nearly fifty years he was an outstanding consultant in internal medicine. He was one of the early members of the Winnipeg Clinical Society, which after a stimulating career merged with an older and more

conservative organization in 1921 to form the present Winnipeg Medical Society.

During the First World War he served overseas from 1915 to 1919. By 1916 he had his majority and was a member of the Medical Board at Folkestone and a little later was made a lieutenant-colonel. Returning to Winnipeg he was in 1927 appointed Professor of Medicine in the University of Manitoba, but administrative detail did not appeal to him and he resigned after a year, retaining his position on the honorary attending staff of the Winnipeg General Hospital. He had an extensive consulting practice and his opinion in difficult and obscure cases was sought by practitioners throughout the Canadian West. In 1930 he was honoured by being made a Fellow of the Royal College of Physicians of London. Born in Scotland, he was educated in Scotland, England and Germany, but never lost the Aberdonian quality. He continued in active practice until 1952. He is survived by his widow.

DR. W. O. LANGS, a member of a pioneer Brant family, died in the Brantford General Hospital on February 24 at the age of 91. Dr. Langs, who was born at Langford, Ont., held degrees in medicine, law and pharmacy. After graduating from the University of Buffalo in 1885, he entered practice with his uncle, Dr. M. S. Langs, in Niagara Falls, N.Y. In 1918 he retired to his late home in Cainsville and there busied himself with scientific experiments and the writing of several historical books. He is survived by a sister.

DR. W. T. McKEOUGH, who for 41 years had been a general practitioner in Sydney Mines, N.S., died at his home on February 24 after a prolonged illness, at the age of 67. Dr. McKeough, who was born at Afton, in Antigonish County, taught school for some years after graduating from St. Francis Xavier University before taking up the study of medicine. On graduating from Dalhousie University in 1914, he set up practice in the Northside community of Florence, and in the following year moved to Sydney Mines. In addition to his practice, he served the town as medical health officer for 15 years, and a few years ago was named Nova Scotia representative of the Canadian Cancer Society.

DR. JOSEPH ISADORE PAGEAU died on February 27 at the age of 81. He was born at Charlesbourg, Que., and graduated with distinction from Laval University. From 1906 he conducted a general practice at Ste-Anne-de-la-Pocatière, Que. In recognition of his years of service as a country doctor, Laval University in 1948 conferred on him an honorary doctorate for social services. He is survived by his widow and 13 children.

DR. JOHN G. QUINN, 60, specialist in gynaecology and obstetrics at St. Mary's Hospital and the Herbert Reddy Memorial Hospital, Montreal, died on March 7 of a heart attack. Born in Ottawa, Dr. Quinn studied at the University of Ottawa before attending McGill University, from which he graduated in medicine in 1923. Later he did postgraduate study at Edinburgh University. His widow, two sons and two daughters survive.

DR. ROBERT MILLS REID, 77, died on March 16 at Vegreville, Alta., after a long illness. He was born at Renfrew, Ont. After teaching at the Dufferin Grammar School at Brigham, Que., he entered Queen's University in 1898 to study medicine. In 1902 he graduated with the degree of Master of Surgery, and after a postgraduate course in the New York Medical School he set up practice in Perth, Ont. In 1905 he moved to Calabogie, where he practised until 1912, when he moved to Vegreville, Alta. There he built up a large practice and was active in his work until his death. Dr. Reid is survived by two sons, Douglas Reid, Sault Ste. Marie, and Dr. J. Fred Reid, Vegreville; a daughter, a sister, and a brother, Dr. James Reid of Leamington, Ont.

DR. WILLIAM JOHN SHERIDAN, who spent 37 years in China as a medical missionary, died suddenly at his home in North Vancouver on March 7. He was 81. Dr. Sheridan went to China first for the Methodist Church in 1907, the year following his graduation in medicine from the University of Toronto. Last year he published "Watching the Chinese Curtain Fall," a book based on his experiences and observations during his 37 years as a medical missionary in western China. Besides his widow, he is survived by two sisters.

DR. DONALD YOUNG SOLANDT, head of the Department of Physiological Hygiene, University of Toronto, died in the Toronto General Hospital on March 30 after a long illness. He was 48. Dr. Solandt was born in Ottawa. He graduated in arts from the University of Toronto in 1929, was awarded the M.A. degree in 1930, and graduated in medicine in 1933. He did postgraduate work at the University of Pennsylvania and at University College, London, where he received a doctorate in philosophy, physiology and biophysics. Since 1941 he had been professor and head of the Department of Physiological Hygiene, University of Toronto, and since 1942 professor of physiology in charge of biophysics.

During the Second World War Dr. Solandt served on many committees concerned with medical problems of special interest to the Canadian Army, the Royal Navy, and the R.C.N.V.R. in which he held the rank of surgeon-commander. His important work on methods of testing colour vision influenced procedures in the Navy and the Air Force. In recognition of his wartime contribution to the United States he received the Medal of Freedom with Bronze Palm.

He had given valuable service and advice on many official committees in Canada and the United States, particularly in the fields of environmental and industrial hygiene. He was an Honorary Member of the Physiological Society (Great Britain), a Fellow of the Royal Society of Canada, and an Honorary Fellow of the American Medical Association.

Dr. Solandt is survived by his widow, three daughters, and a brother, Dr. Omond M. Solandt, chairman of the Defence Research Board, Ottawa.

DR. JOHN STEWART, of Moncton, N.B., died on March 8 at the Dorval airport, while waiting for a T.C.A. flight to his home in New Brunswick. He was born in 1907 in Campbellton, N.B., and attended local schools before going to Mount Allison University for his Bachelor of Arts degree. This was followed by a medical course at Dalhousie University, from which he graduated in 1933 with the degree of M.D., C.M. Dr. Stewart practised in Cornerbrook, Nfld., for four years, and began practice in Moncton in 1940.

DR. NORMAN HENRY SUTTON died on March 21 at Orillia, Ont., at the age of 75. A native of Cavan, Ont., he graduated in medicine from the University of Toronto and practised in Orillia and several Ontario districts. During World War I he served overseas with the rank of lieutenant-colonel. In Canada again, he travelled for a time with the Anglican British Columbia Mission Boat. More recently, Dr. Sutton worked with the Workmen's Compensation Board and was on the staff of Gravenhurst Sanatorium. A son and a daughter survive him.

DR. JOSEPH BULMER THACKERAY, M.B., M.R.C.S., L.R.C.P., a well-known Ottawa physician, died at his home on March 21 after a short illness. He was 64. In addition to carrying on a private practice in Ottawa since 1920, Dr. Thackeray had been on the staff of the Civic Hospital since 1925. He served on the medical advisory board of the Civic Hospital from 1945 to 1948 and was formerly a consultant in obstetrics at the hospital. For many years he was also on the staff of Grace Hospital. He was born in Norfolk, England, and re-

ceived his early education in St. John's, Newfoundland, and Taunton, England. He studied medicine at the University of London, graduating in 1920 with the degree of Bachelor of Medicine and Surgery. He was a licentiate of the Royal College of Physicians and member of the Royal College of Surgeons. He served throughout World War I and was awarded the Military Cross, and also saw service in India. He is survived by his widow, a daughter, and a sister.

DR. GEORGE C. WAGNER, well-known surgeon of Innisfail, Alta., died at his home on March 9 in his 70th year. Dr. Wagner, who was born at Delaware, Ont., was a graduate of the University of Western Ontario. He was on the staff of a hospital in Buffalo, N.Y., before going to Innisfail in 1913. During the First World War he served overseas with the rank of captain. He is survived by his widow, a son and a daughter.

DR. JAMES WALLACE of Renfrew, Ont., died in the Renfrew Hospital on March 7 after an illness of several months. He was 84. One of Queen's University's most distinguished graduates, Dr. Wallace was the only student to receive degrees from three faculties: Arts in 1897, Theology in 1901 and Medicine in 1920. Dr. Wallace, who was born in Renfrew, entered Queen's in 1894 and for the next nine years was a student in arts and theology. He served as a minister with the Presbyterian Church until 1912, when he entered the Faculty of Medicine. When World War I broke out, he enlisted and went overseas. In 1918 he returned to Queen's, graduating with the degree of M.D., C.M. in 1920. Dr. Wallace was for many years a member of the staff of the International Health Division of the Rockefeller Foundation. Later he transferred to the American Public Health Association, in which he held a number of important positions.

DR. JOSEPH BULMER THACKERAY

AN APPRECIATION

We are indebted to a colleague for the following appreciation:

The medical profession of Ottawa has sustained a severe loss through the death, on March 22, 1955, of Dr. Joseph Bulmer Thackeray at the age of 64. He was the son of the Reverend Joseph Thackeray and his wife Ada Bulmer, both of Yorkshire stock. He was born in England but spent the earlier years of his life in St. John's, Newfoundland. He was educated at Taunton School, Somerset, and later at London University. After a short time at sea in a windjammer out of St. John's he went to London, England, where he studied medicine at the London Hospital. He received the M.R.C.S. and L.R.C.P. in 1914 and was for a time an assistant in a busy London practice, after which he joined the R.A.M.C., serving as a regimental medical officer in Gallipoli and Mesopotamia and being awarded the Military Cross. He was later posted to India, and after demobilization graduated as M.B., B.S. of London University. He settled in Ottawa in 1920 and soon became one of the busiest practitioners in the city. He was a member of the staff of the Ottawa Civic Hospital from its beginning and was for some years chief of the medical service and member of the advisory board of the hospital. He was also for many years a member of the staff of the Grace Hospital and acted as consultant in obstetrics in both hospitals.

So much for the bald outline of his career. He was a man of outstanding ability, keen-witted and alert with a marked sense of humour. As a diagnostician his powers were uncanny, and, one might almost say, intuitive. His knowledge of pharmacology was phenomenal, though when he found time to read up all the new advances in a mystery, as he worked steadily all day and a good part of the night. For many years he never had an uninter-

rupted night's sleep, and was out of bed three or four nights a week. He had a very large obstetrical practice and ushered enough babies into the world to people a fair-sized town. He never seemed tired but was always bright and cheerful, even after doing without sleep for several days at a time. When the writer once remonstrated with him for working too hard and suggested confining his practice to one particular branch of medicine, he replied that what he enjoyed most was not to know what the next patient would have the matter with him. He invariably showed a selfless devotion to his patients, and this, in the end, was his undoing. He persisted in working as usual while ill himself with influenza, which brought on acute congestive heart failure a few years ago, from which he never completely recovered. In the last year or so the condition progressively deteriorated, and for some months before his death he was confined to his bed for long periods in great distress.

He was a typical example of the old-style family doctor, embodying all his virtues without his defects, and was an honour to his profession in every way. He did not work hard merely for money, but rather for the satisfaction he enjoyed in doing a good job and exercising his faculties to the full. He will be deeply missed by the public at large, as well as by his colleagues. This tribute is in grateful acknowledgment of his friendship.

J.K.M.D.

ABSTRACTS from current literature

MEDICINE

Heel Lesions of Rheumatoid Arthritis.

BYWATERS, E. G. L.: ANN. RHEUMAT. DIS., 13: 42, 1954.

The two lesions affecting the heel in rheumatoid arthritis have received little or no attention in recent years; one involves the plantar surface of the calcaneus and the calcaneal spur, and the other the synovial bursa between the insertion of the Achilles tendon into the calcaneus and the calcaneus itself. The author describes the normal anatomy. With advancing age some cartilaginous degeneration occurs, but the bone remains intact throughout life and radiographs show a smooth, strong cortical layer.

Plantar spurs are seen in many people, the incidence increasing with age, without any complaint relating thereto; they consist of an extension of bone into the periosteal insertion of the plantar aponeurosis.

In seven years, 22 patients of the author complained of pain and swelling, or both, in the heel. All except one, with a synovial chondromatosis of the sub-Achilles bursa, were suffering from rheumatoid arthritis. Two patients showed plantar spur formation and ossification of the Achilles tendon only, without erosions. Radiological erosions were seen in 18 of the group of 19 patients with rheumatoid arthritis. Heel tenderness came within a few months of the onset of rheumatoid arthritis and was sometimes one of the presenting symptoms.

The sub-Achilles bursal lesion produces pain on walking and on pressure of the shoe; tenderness is elicited by pressure on the posterior surface of the calcaneal bone at the insertion of the tendon. The tendon itself may be broader and flatter than usual or swollen locally. In the plantar lesion pain and tenderness were the symptoms, but they were not associated with swelling. The earliest radiological sign of a sub-Achilles lesion is in the soft tissues. The tendon becomes thicker on lateral view, and the clear space beneath it, normally occupied by radio-translucent fat, becomes opaque owing to the presence of inflammatory cells, fluid and blood vessels.

At the same time a rarefaction appears in the subjacent bone and the sharply defined layer of the subchondral cortical bone becomes less well defined and fuzzy. Finally, well-marked erosions, maximal just above the upper end of the insertion of the tendon, appear; this change is quite rapid. After a period of years, healing sets in; this is shown radiologically by the remineralization of the bone and disappearance of the abnormal soft tissue thickening. In plantar lesions, an erosion of bone occurs over an area of 1-2 centimetres from the joint behind the spur backwards, and appears first as rarefaction and finally as a clear space somewhat moth-eaten in appearance.

Biopsy on three patients showed a mass of rheumatoid granulation tissue, hyperplastic membrane, and large collections of plasma cells and lymphocytes embedded in a mass of myxomatous connective tissue. In some areas the synovial membrane bore some resemblance to the later stages of a rheumatoid nodule, where the palisade layer comes to life on the free surface of a cavity. An autopsy specimen was obtained from one patient, a man who had rheumatoid arthritis for 13 years; there was a hyperæmic and rough (gritty) periosteal layer in the affected region, overlaid by and densely adherent to an opaque yellow layer between it and the cushions of fat. Microscopically, this layer was a fibrinoid lattice-work, invading bone from which it was separated by a vascular layer of cellular proliferation.

In the treatment of these patients specific local measures are sometimes necessary, particularly when the lesions are the only ones causing symptoms. In mild cases, the sub-Achilles swelling may be treated conservatively, since it usually heals in a few years without residual damage, but if it causes severe pain or disability it is better excised. The plantar lesions are probably due in part to excessive use of the heels, since they are frequently associated with metatarsal lesions. The provision of a soft pad beneath the heel or a padded ring usually gives the patient some relief. The author believes that rheumatoid arthritis is the most common cause of sub-Achilles bursitis and of erosive plantar calcaneal lesion and that the two are often associated.

W. F. T. TATLOW

Alimentary Tract in Disseminated Scleroderma with Emphasis on Small Bowel.

ABRAMS, H. L., CARNES, W. H. AND EATON, J.: A. M. A. ARCH. INT. MED., 94: 61, 1954.

Six cases of disseminated scleroderma with widespread involvement of the gastrointestinal tract are described. Three cases were of relatively long duration and the development of visceral symptoms other than dysphagia was late; in three other cases the onset was rapid with dysphagia a later manifestation than abdominal pain or distress, anorexia, nausea and vomiting. In one of these latter cases dysphagia was absent. The authors found no correlation between the extent of skin and skeletal involvement and the intestinal changes. In one case the skin changes were insignificant and failed to suggest the diagnosis. All six patients showed the Raynaud phenomenon, and in three it marked the onset of the disease.

One of the authors' more interesting findings was the presence, in two patients, of a flat glucose tolerance curve which was associated with a very slow rise, suggesting that glucose was not being normally absorbed. The authors suggest that the absence of normal mixing and decreased contact between the intestinal wall and the bowel contents, based on diminished peristalsis, was responsible. Radiologically marked dilatation of the small bowel was the most striking abnormality, peristalsis either did not occur or was of diminished amplitude and the bowel remained distended for a considerable period of time. Similar abnormalities are seen in the oesophagus, so that gravity must be relied upon for a food bolus to enter the stomach. The size of some small bowel loops was such as to suggest intestinal ob-